May 2, 1961 R. D. CARRIER 2,982,547

AQUATIC PLAY EQUIPMENT

Filed Sept. 2, 1960

Fig. 1.

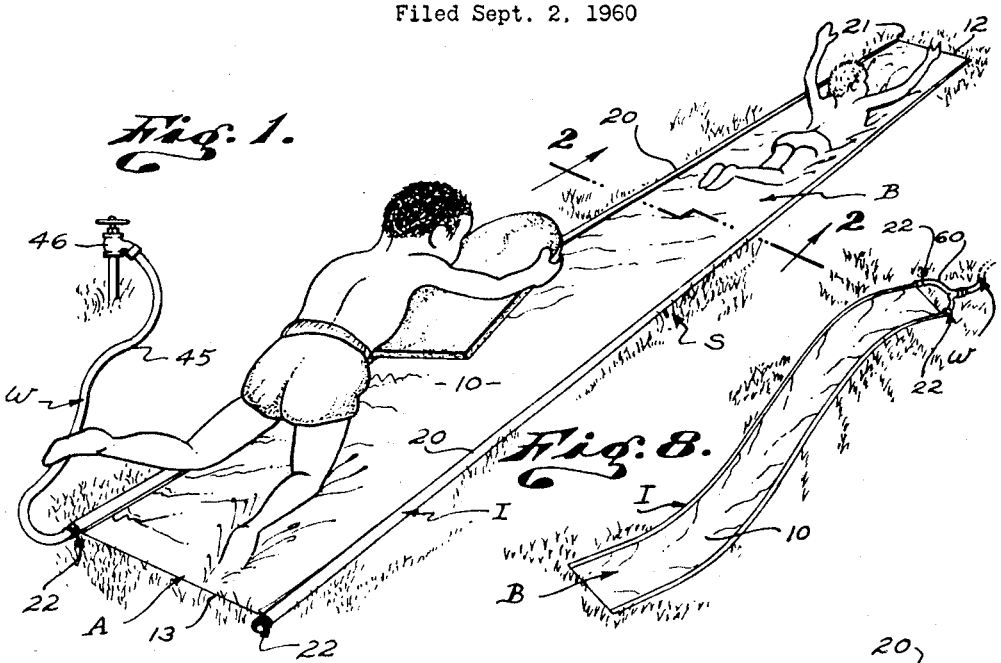


Fig. 8.

Fig. 2.

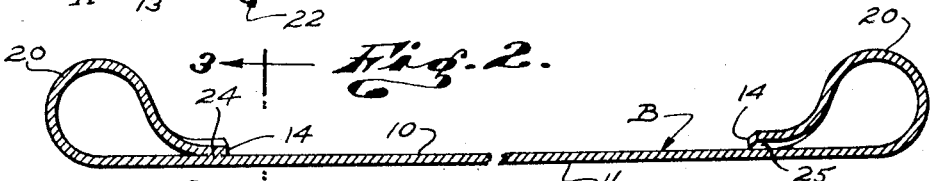


Fig. 3.

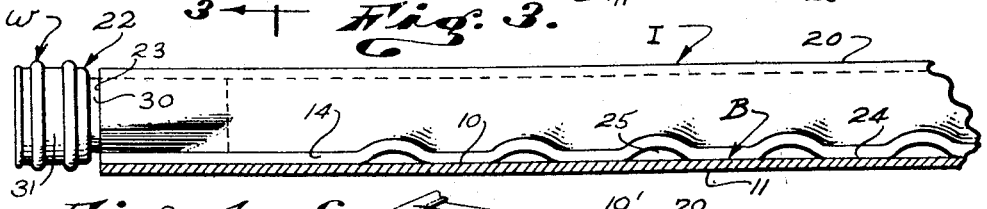


Fig. 4.

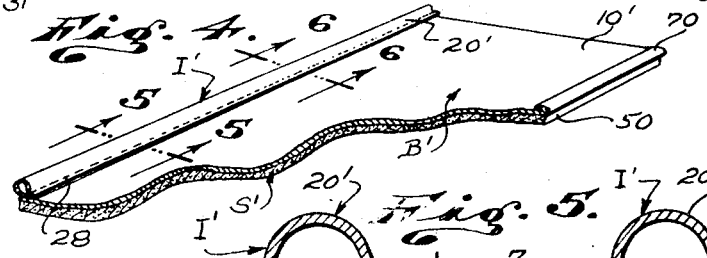


Fig. 5.

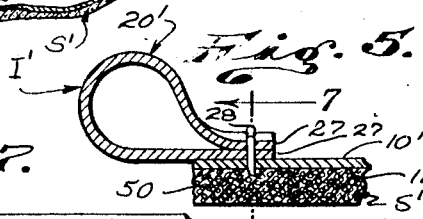


Fig. 6.

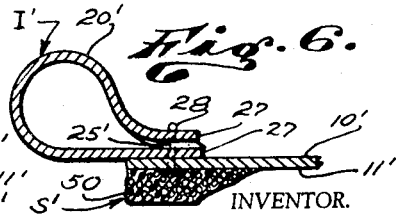
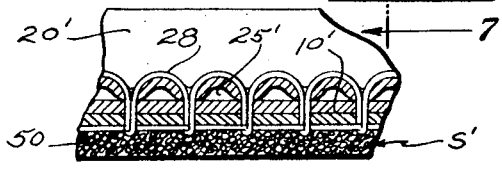


Fig. 7.



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AQUATIC PLAY EQUIPMENT

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6 Claims. (Cl. 272—56.5)

This invention relates to a piece of play or athletic equipment and is more particularly concerned with a piece of aquatic equipment for use on a turf or lawn and upon which persons can slide or body plane.

It is a well known and frequently practiced sport, wherever large bodies of water are found, to run along the water's edge and then leap and project one's body in a horizontal plane so as to land flat on the surface of the water and plane thereacross. This sport is commonly referred to as body planing, and can be practiced with or without the use and aid of planing boards or air mattresses, which boards or mattresses consist of flat, lightweight rectangular structures adapted to be held on one's hand and positioned against one's chest or upper abdomen when planing.

This sport is best practiced in very shallow water so that one's body does not submerge too deeply. Accordingly, the person practicing the sport is, in reality, planing across the bottom beneath the water, and the water serves primarily as a lubricating film.

In practice, the ideal natural environment for body planing is where an extremely shallow body of water occurs over a flat, slick, soft clay or muddy bottom. Under these conditions a person can body plane for a considerable distance, often in excess of 20 feet.

The above ideal environment is seldom found. However, the sport is practiced without much concern for the environment and, as a result, with varying degrees of success.

Another sport, similar in nature to body planing, is sliding, that is, placing oneself on a slick or smooth inclined surface and allowing oneself to slide down the said surface by the force of gravity. This sport is practiced widely and in many different environments. One extremely popular and most ideal natural environment for sliding, but which is not readily available, is a moist, slick, mud or clay bank, such as is frequently found along the shores and/or edges of large bodies of water.

The primary disadvantages with the ideal natural environments for body planing and sliding set forth above are, first, the scarcity of such places, second, the fact that mud and clay frequently carry sharp and abrasive materials which are dangerous, and, third, such material is extremely messy and generally distasteful or unpleasant, and requires that one having played therein bathe and clean himself and his wearing apparel vigorously and thoroughly.

An object of the present invention is to provide a structure across or along which a person can slide or body plane.

Another object of the present invention is to provide a structure of the character referred to which has all of the desirable features of natural ideal body planing or sliding environments, such as referred to above, and yet eliminates the undesirable features of such environments.

Still another object of the present invention is to provide a structure of the character referred to which has an elongate, flexible, soft, smooth, water-lubricated surface over which a person can slide or plane, and which is safe, clean, easy and economical to manufacture and maintain.

A feature of this invention is to provide an elongate, horizontally disposed film-like strip of flexible material having a smooth upper or top surface, a soft, flexible, and/or resilient support for the strip, and irrigating means extending longitudinally of the strip to distribute a film of lubricating water over the said surface of the strip.

It is an object of this invention to provide an irrigating means that can be easily and conveniently connected with a conventional garden hose and which is related to the strip in such a manner as to establish a dike along a side edge thereof and thereby prevent excessive lateral run-off of the lubricating water.

Another object of this invention is to provide a strip formed of a water-proof and/ or water repellant material or of a material having its top surface treated with a water-proofing and/or water repellant material so as to cause the lubricating water deposited thereon to normally stand or bead thereon, so as to maintain the desired distribution of such water and so that the water will readily flow thereacross, that is, to provide a strip which is not so porous and/or absorbent as to allow the water deposited thereon to flow therethrough or to be absorbed thereby.

Another object of this invention is to provide a strip of the character referred to having a smooth top surface which is not adversely affected by water and such that it would cut or abrade one's skin when lubricated.

An object of my invention is to provide a strip of the character referred to that can be applied to and extended across a turf or lawn so that the turf or lawn provides a soft resilient support for the strip.

Still another object of this invention is to provide a structure of the character referred to wherein the soft, resilient support for the strip consists of an elongate, flat, horizontally disposed sheet of foam plastic or rubber which is coextensive with the under side of the strip.

A further object of my invention is to provide a structure of the character referred to wherein the irrigating means is in the form of an elongate duct formed on or integrally with the strip to extend longitudinally along one side thereof, and which is provided with or establishes a plurality of longitudinally spaced, laterally, inwardly disposed apertures to discharge water flowing within the duct over the top of the strip.

Another object of this invention is to provide a structure of the character referred to that can be easily and conveniently rolled up to establish a cylindrical roll or package for the purpose of storing and/or shipping.

The various objects and features of my invention will be fully understood from the following detailed description of typical preferred forms and applications of my invention, throughout which description reference is made to the accompanying drawings, in which:

Fig. 1 is a perspective view of the structure that I provide, showing it in use;

Fig. 2 is an enlarged detailed sectional view taken as indicated by line 2—2 on Fig. 1;

Fig. 3 is a detailed sectional view taken as indicated by line 3—3 on Fig. 2;

Fig. 4 is a perspective view of a portion of another form of the invention;

Fig. 5 is an enlarged detailed sectional view taken as indicated by line 5—5 on Fig. 4;

Fig. 6 is a sectional view taken as indicated by line 6—6 on Fig. 4;

Fig. 7 is a sectional view taken as indicated by line 7—7 on Fig. 5; and

Fig. 8 is a perspective view showing another application or installation of my new construction.

The structure A provided by the present invention is adapted to provide or establish a smooth, lubricated surface across or along which a person can easily, conveniently, and safely, body plane or slide.

The structure A consists, generally, of an elongate strip or body B, irrigating means I, water supply means W, and a resilient support means S for the strip, in the preferred carrying out of the invention.

The strip B is, in the preferred carrying out of the invention, a flat, elongate, horizontally disposed flexible strip of sheet material, having a flat, smooth, substantially horizontally disposed top surface **10**, a downwardly disposed bottom surface **11**, front and rear end edges **12** and **13**, and straight parallel side edges **14**.

The strip S is flexible so that it can easily and conveniently be engaged over a somewhat irregular support or surface, and will readily conform thereto, so that it will yield upon impact and engagement of a person's body thereon, and so that it can be easily and conveniently rolled up when not in use, for storing and handling.

The smooth top surface **10** of the strip is such that it will not absorb or allow water to flow therethrough, and is preferably water repellant so that water deposited thereon tends to bead, run freely thereacross, and assume the form of a lubricating film between the said surface and the body of a person which is bearing and sliding upon the surface.

In practice, a heavy gauge plastic film, for example, a vinyl plastic film, can be advantageously employed to establish the strip B, or a fabric strip having a smooth, imperforate, water-repellant coating thereon (such as Naugahyde) can be employed. Further, in practice, the strip can be established of rubber or can, if desired, be made of a thin, flexible strip of sheet metal, such as aluminum, having its smooth top surface treated with a suitable water repellant, such as the various silicone preparations or compounds, which are readily available in the open market.

The irrigating means I is shown as including an elongate, flexible duct **20**, extending longitudinally along one side of the strip and having a plurality of longitudinally spaced laterally opening apertures disposed to discharge water onto the top surface **10** of the strip. The duct is coextensive with the strip, is closed at its front end **21**, and is provided with a hose coupling **22** at its rear end **23**.

In the form of the invention shown in Figs. 2 and 3 the duct **20** is established by folding or turning the side edge portion of the sheet upwardly and laterally inwardly so that the edge **14** thereof is disposed laterally, inwardly, and the bottom surface **11** of the said turned side portion of the strip is adjacent and opposes the top surface **10** of the strip adjacent the central portion thereof, as clearly illustrated in Fig. 2 of the drawings.

The edge of the turned portion establishing the duct **20** is secured to the flat central portion, as by a suitable cementing operation, heat sealing, or stitching.

In practice, the laterally inwardly disposed portion of the duct can be suitable perforated or provided with longitudinally spaced apertures, above the point of joinder between the turned portion and the central portion of the strip. In the preferred carrying out of the invention, however, and as illustrated in the drawings, the apertures are established by the opposing surfaces of the turned and central portions of the strip, and by the means employed to fix or join the said opposing surfaces together.

In Figs. 2 and 3 of the drawings, I have shown the opposing surfaces **10** and **11** of the strip establishing the duct **20** secured or bonded together at spaced intervals longitudinally of the strip by heat seals **24**. The

adjacent seals **24**, and the opposing surfaces **10** and **11** intermediate the seals or bonded portions **24**, establish laterally inwardly opening apertures **25** communicating with the interior of the duct, which serve to direct water flowing through the duct laterally across the top surface **10** of the flat central portion of the strip.

The front end **21** of the duct is closed and sealed by similarly bonding the opposing surfaces of the strip laterally or transversely of the construction.

In the form of the invention shown in Figs. 4, 5 and 6, the duct **20'** of the means I' is established by a separate elongate ribbon of material, preferably the same material as that used to establish the strip. The ribbon is folded double longitudinally and is arranged adjacent the top surface **10'** of the strip along one side edge thereof, with its adjacent edges **27** disposed laterally inwardly. The inner portion of the folded ribbon is secured to the strip B by suitable stitching **28**. The stitching **28** serves to maintain the opposing surfaces of the ribbon in tight sealing engagement with each other at points spaced longitudinally thereof, as where the stitching extends through the material, and establishes a plurality of longitudinally spaced unsealed portions or apertures **25'**, as where the stitching extends along the outer surfaces of the construction.

This latter form of the invention is most advantageous when a plastic covered woven fabric is employed to establish the construction, and where bonding the surfaces of the material together by heat sealing or cementing operations is not possible or desirable.

It is to be understood that stitching, such as is referred to above, can be advantageously used in the first form of the invention.

The hose coupling **22** is the same in both forms of the invention and is shown as including, a short tubular nipple **30** slidably engaged in the open front end of the duct **20** to project therefrom. A suitable internally threaded collar **31**, similar to the female collar-like element of a conventional garden hose coupling, is rotatably carried by the outer end of the nipple.

Since the details of construction of the hose coupling can vary widely, without affecting the novelty of this invention, I will not burden this application with further unnecessary description and discussion thereof.

The inner portion of the nipple, that is, the portion extending into the duct, can be fixed and sealed in the duct in any desired manner. For example, the nipple can be cemented in the duct, or a suitable mechanical clamp can be employed to hold the duct in tight clamped engagement about the exterior of the nipple.

The water supply means W can vary as circumstances require. However, the structure is particularly adapted to be connected with a conventional garden hose **45** connected with and extending from a suitable hose bib **46**, such as is commonly found in areas where a piece of play equipment, such as that which I provide, might be used.

The support means S, or base, for the strip B can vary widely in practice. However, in the preferred and most simple and economical carrying out of the invention, and as illustrated in Figs. 1 and 8 of the drawings, the support means S consists of a thick, soft, resilient lawn or turf over which the strip is extended and rests. Such a supporting means serves as a shock absorber and permits the strip to flex and yield in the desired manner when a person is playing thereon. The strip S is not so heavy as to press and matt down a turf or lawn, and to damage it, but is sufficiently light as to be yieldingly supported thereon.

Further, as the construction is used, water deposited on it is splashed therefrom. When used on a lawn or turf such water is not wasted but, rather, serves to water and feed the lawn or turf.

If desired, the supporting means S can be in the form of an elongate sheet of foam rubber or plastic, similar to foam rubber or foam plastic underpadding commonly

used in combination with carpeting, which is coextensive with the bottom surface 11 of the strip.

In the form of the invention illustrated in Figs. 4, 5 and 6, I have shown the supporting means S' as involving a sheet 50 of soft, flexible, resilient, non-interconnected cellular material, such as foam rubber or foam plastic.

The sheet 50 can be cemented or bonded to the strip to form an integral part of the construction, or can be a separate part.

When the construction includes the sheet 50 it can be conveniently and safely used on a cement driveway or sidewalk, or can be used over a lawn or turf so as to provide a very desirable soft and resilient support for the strip.

In Fig. 1 of the drawings I have shown the means I as including a duct 20 along both side edges of the strip and have shown the hose 45 connected to but one of the ducts. In practice, it has been found that only one duct 20 is required when the structure is laid flat and in a horizontal plane, for body planing. However, when the structure is engaged on a hill or steep grade, as for sliding, and the water tends to run off rapidly, the use of two ducts, such as are shown in Fig. 8, may be required. In such a case two hoses 45 are required to connect with both of the ducts, or a suitable Y-type adapter 60 (see Fig. 8) can be provided to connect both ducts to a single hose.

In practice, where only one duct 20 is used, the other, or unused duct, serves as a dike and prevents excessive lateral run-off of the water deposited on the strip.

In Fig. 4 of the drawings, I have shown the strip B' provided with a duct 20' along one edge thereof and have shown the other edge of the strip provided with an upwardly turned hem 70, which serves as a dike to prevent excessive lateral run-off of the water.

With the structure set forth above it will be apparent that when it is in working condition and water is distributed over the top surface of the strip by the irrigating means, a smooth, water-lubricated surface is provided over which a person can safely slide, skim or plane with ease and without subjecting himself to dirt or mud which may carry dangerous and abrasive materials, such as are commonly found where ideal natural body planing and sliding conditions exist.

It will also be apparent that when the construction I provide is not in use, it can be easily and conveniently rolled up for storage, the ducts of the irrigating means being such that when they are not filled with water they will readily collapse and flatten.

In practice, persons do body plane on wet concrete decks and the like, such as are found about swimming pools, without injury. Accordingly, while a soft resilient support is desirable, it is not absolutely required. The strip, with the irrigating means that I provide therefor, can be used satisfactorily without the support means S.

Also, in practice, the strip could be formed of a sheet of foam rubber or plastic having a smooth, imperforate skin, which skin would establish the strip, per se, while the foam body of the sheet would establish the support means. Such a construction would be essentially the same as that specifically set forth above.

While I have described the strip as being flat, and as having a smooth top surface 10, it is to be understood that the term "flat" is meant to describe the strip as a whole and that the term "smooth" describes the character of the skin or surface thereon. In practice, the sheet could be formed with a plurality of lateral or diagonal corrugations, or with a herring-bone pattern of corrugations, and yet be flat and have a smooth top surface. By establishing the strip of a sheet of corrugated vinyl film, or the like, it will be apparent that the sheet itself would be resilient and would not require the support means S and, further, the corrugations would aid and enhance the distribution of water across and over the sheet.

Further, with a strip formed of a sheet of material having a herring-bone corrugated pattern thereon, or a similar pattern, the irrigating means could be arranged to extend along the rear edge of the strip and the corrugations would serve to direct the flow of water longitudinally and laterally along and across the strip. Thus by way of example the duct 20 of Figure 3 can extend transversely across strip B rather than longitudinally therealong.

Having described only typical preferred forms and applications of my invention, I do not wish to be limited or restricted to the specific details herein set forth, but wish to reserve to myself any variations or modifications that may appear to those skilled in the art and fall within the scope of the following claims.

Having described my invention, I claim:

1. A portable aquatic play device for body planing comprising a unitary film-like flexible strip having a first surface frictionally engageable with the ground when the strip is extended so as to inhibit relative movement therebetween and a second flat and smooth surface being water impervious and forming a body planing area when the strip is so extended in engagement with the ground, a water conduit connected to the strip, said conduit having means for applying water to the body planing area of said second surface when the strip is extended, said strip being of a selected thickness, flexibility and weight so as to conform to irregularities of the ground when extended and, when in storable condition, to provide for the facile carrying thereof by a user.

2. A device as described in claim 1 in which the water conduit extends longitudinally along the body planing area.

3. A device as described in claim 1 in which the water conduit extends transversely across the body planing area.

4. A device as described in claim 1 in which the strip consists of a non-wettable plastic material.

5. A device as described in claim 4 in which the water conduit consists of a passage formed by folding over a longitudinal edge of the strip.

6. A device as described in claim 5 in which the water conduit terminates at one end thereof in a hose coupling and is sealed at its other end.

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